Case 2882

Lagomeryx Roger, 1904 (Mammalia, Artiodactyla): proposed designation of *L. ruetimeyeri* Thenius, 1948 as the type species

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Abstract. The purpose of this application is to conserve the established understanding of the name *Lagomeryx* Roger, 1904 which has been used for nearly 90 years for a genus of Eurasian Miocene cervoids. The present type designation is of a species of uncertain identity which renders *Lagomeryx* either a senior or a junior subjective synonym. It is proposed that *Lagomeryx ruetimeyeri* Thenius, 1948 be designated the type species, thereby also allowing the stable usage of generic names of other Miocene cervoids to be maintained.

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1. By the end of the nineteenth century numbers of cervoid (deer-like) artiodactyls of Miocene age had come to light in the European fossil record. Schlosser (1887, p. 295) recorded that material of '*Palaeomeryx pygmaeus*' (as used in Meyer's manuscript notes and therefore not an available name) included at least three species, two of them represented at Reisensburg, near Günzburg, Germany, which is now regarded as a lower Miocene locality. Cervoid antlers from there had been illustrated but not named by Rütimeyer (1880, pl. 1, figs. 2–7).

2. The specific name of *Dicroceros* [sic; recte *Dicrocerus*] *minimus* Toula, 1884 (p. 395) was founded for some cervoid teeth from Göriach, Austria. Schlosser (1887, p. 296) considered that the larger of the two Reisensburg '*Palaeomeryx pygmaeus*' species could be conspecific with Toula's species.

3. Hofmann (1893, p. 61) replaced *Dicrocerus minimus* Toula by the name *Palaeomeryx meyeri*. This was because, if Toula's species was assignable to *Palaeomeryx* (para. 2 above), it would be a secondary homonym of '*P. minimus*', a name also given in Meyer's manuscript notes and a different species from that at Göriach. Hofmann rejected '*Palaeomeryx pygmaeus*' because this name, as used by Meyer, was composite. These actions did not take account of the unavailability of Meyer's names. Hofmann (1893, pl. 12, figs. 10–15, pl. 13, figs. 1–4, 6) illustrated dental pieces and a distal metacarpal of *P. meyeri*, all housed in the Joanneum, Graz. Schlosser (1916, p. 15, footnote) subsequently asserted that the metacarpal belonged to a different species, *Palaeomeryx furcatus* Hensel, 1859, later to be placed in *Euprox* Stehlin, 1928, although Thenius (1948, p. 221) preferred Hofmann's original attribution. At that time no antlers had been attributed to the species described from Göriach.

4. Roger (1904, p. 18) founded the genus *Lagomeryx* for species of small cervoids with distinctive clusters of terminal prongs on their antlers. He did not designate a type species. He included *Palaeomeryx meyeri* in the genus and placed the Reisensburg antlers (see para. 1) in this species. He also referred two other species to *Lagomeryx*: *Palaeomeryx parvulus* Roger (1898, p. 38) and *P. pumilio* Roger (1898, p. 39). For *P. parvulus* he had originally illustrated a dentition (Roger, 1898, pl. 2, fig. 7) and an antler (pl. 2, fig. 4), but he later (Roger, 1904, p.18) reassigned the antler to *P. pumilio*. Fahlbusch (1977, p. 232) reported that the antler had been destroyed in the Second World War, and he also regarded it as of uncertain species identity within *Lagomeryx*. The only described specimens of *L. pumilio* were a figured lower third molar (Roger, 1898, pl. 2, fig. 5), another lower third molar and some limb bone fragments. The syntypical material of all three originally included species of *Lagomeryx* thus failed to include any specifically attributable antlers.

5. Thenius (1948, p. 221; 1950, p. 244, figs. 7–9) recorded that some Göriach upper teeth (numbered 9572 in the Joanneum, Graz) assigned to *L. meyeri* were found in association with an antler resembling those of *Euprox* sp.; the species could not therefore include antlers like those at Reisensburg (para. 4 above). Thenius noted that Meyer's manuscript name '*Palaeomeryx minimus*' could not be a homonym of *Dicrocerus minimus* Toula and that the latter therefore had priority over *P. meyeri* Hofmann. Because of the morphology of the antler he placed *D. minimus* in *Euprox*. Thenius (1948, p. 221) founded *L. ruetimeyeri* for *Lagomeryx* fossils from sites other than Göriach which had hitherto been placed in *L. meyeri* and designated as holotype the Reisensburg left antler illustrated by Rütimeyer (1880, pl. 1, figs. 2, 3). This antler has an almost complete crown and is housed in the Bayerische Staatssammlungen für Paläontologie und historische Geologie, Munich. At one time Ginsburg (1971, p. 1001) thought that the Göriach antler and teeth studied by Thenius could belong to *Heteroprox larteti* (Filhol, 1891), but now (personal communication, February 1993) he regards the antler as belonging to a female *Dicrocerus elegans* Lartet, 1851, a species which has also been identified at the site.

6. In spite of the doubtful identity of the nominal taxon *Palaeomeryx meyeri* Hofmann, 1893, Vislobokova (1983, p. 24) designated it as the type species of *Lagomeryx*. If the interpretation of *Palaeomeryx meyeri* by Thenius (1948, 1950) or by Ginsburg (1971) is correct, recognition of this type designation would render *Lagomeryx* Roger, 1904 a senior subjective synonym of either *Euprox* or of *Heteroprox*, both founded by Stehlin (1928, p. 255). If Ginsburg's current interpretation should be correct, *Lagomeryx* would be a junior subjective synonym of *Dicrocerus* Lartet, 1851. Any of these outcomes would introduce considerable confusion into the nomenclature of Miocene cervoids. All four names, *Lagomeryx*, *Heteroprox*, *Euprox* and *Dicrocerus*, are currently in use. Their status was discussed by Simpson (1945, pp. 266–268). *Lagomeryx*, based on the Reisensburg antler, is regarded as the most distinctive of the genera. The name has consistently been used to refer to cervoid species having antlers like those of *L. ruetimeyeri* and unlike those of *Heteroprox*, *Euprox* or *Dicrocerus* (see, for example, Schlosser, 1916; Roman & Viret, 1934; Stehlin, 1937; Pilgrim, 1941; Crusafont Pairo, 1952; Rinnert, 1956; Viret, 1961; Young, 1964 and Chow & Shih, 1978).

7. None of the three species originally included in *Lagomeryx* is suitable as the type species: *Palaeomeryx meyeri* is of uncertain identity (paras. 5 and 6 above),

whilst *P. parvulus* and *P. pumilio* were not characterised by specifically identifiable antlers but based on teeth (para. 4), which are less diagnostic. To maintain the current concept and nomenclature of *Lagomeryx* Roger, 1904 we propose that *Lagomeryx ruetimeyeri* Thenius, 1948 be designated the type species. The latter is the best choice for type species because its holotype is an antler which is complete almost to the tip, and which was studied by Roger and placed by him in the first species assigned to the genus. Moreover, it is the first illustrated antler ascribed to *Lagomeryx*. This designation will also safeguard the usage of names for other nominal genera of Miocene cervoids.

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Lagomeryx* Roger, 1904 and to designate *Lagomeryx ruetimeyeri* Thenius, 1948 as the type species;

(2) to place on the Official List of Generic Names in Zoology the name *Lagomeryx* Roger, 1904 (gender: masculine), type species by designation in (1) above *Lagomeryx ruetimeyeri* Thenius, 1948;

(3) to place on the Official List of Specific Names in Zoology the name *ruetimeyeri* Thenius, 1948, as published in the binomen *Lagomeryx ruetimeyeri* (specific name of the type species of *Lagomeryx* Roger, 1904).

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References

Chow, B. & Shih, M. 1978. A skull of *Lagomeryx* from the middle Miocene of Linchu, Shantung. *Vertebrata Palasiatica*, **16**: 111–122.

Crusafont Pairo, M. 1952. Los jirafidos fosiles de España. *Memorias y Comunicaciones del Instituto Geológico*, **8**: 1–239.

Fahlbusch, V. 1977. Die obermiozäne Fossil-Lagerstätte Sandelzhausen 11. Ein neues Zwerghirsch-Geweih: *Lagomeryx pumilio*? *Mitteilungen Bayerischen Staatssammlungen für Paläontologie und historische Geologie*, **17**: 227–233.

Filhol, H. 1891. Études sur les mammifères fossiles de Sansan. *Annales des Sciences Géologiques*, **21**: 1–319. [Also issued as *Bibliothèque de l'École des Hautes Études. Section des Sciences Naturelles*, **37**: 1–319].

Ginsburg, L. 1971. Un ruminant nouveau des faluns Miocènes de la Touraine et de l'Anjou. *Bulletin du Muséum National d'Histoire Naturelle*, (2)**42**(5): 996–1002.

Hensel, R. 1859. Ueber einen fossilen Muntjac aus Schlesien. *Zeitschrift der Deutschen Geologischen Gesellschaft*, **11**: 251–279.

Hofmann, A. 1893. Die Fauna von Göriach. *Abhandlungen der Kaiserlich-Königlichen Geologischen Reichsanstalt*, **15**(6): 1–87.

Lartet, E. 1851. Notice sur la colline de Sansan. *L'Annuaire du Département du Gers*, **1851**: 3–45.

Pilgrim, G.E. 1941. The dispersal of the Artiodactyla. *Biological Reviews*, **16**: 134–163.

Rinnert, P. 1956. Die Huftiere aus dem Braunkohlenmiozän der Oberpfalz. *Palaeontographica*, (A)**107**: 1–65.

Roger, O. 1898. Wirbelthierreste aus dem Dinotheriensande der bayerisch-schwäbischen Hochebene. *Bericht des Naturwissenschaftlichen Vereins für Schwaben und Neuburg (a. V.) Augsburg*, **33**: 1–46.

Roger, O. 1904. Wirbelthierreste aus dem Obermiocän der bayerisch-schwäbischen Hochebene. *Bericht des Naturwissenschaftlichen Vereins für Schwaben und Neuburg (a. V.) Augsburg*, **36**: 3–22.

Roman, F. & Viret, J. 1934. La faune de mammifères du Burdigalien de La Romieu (Gers). *Mémoires de la Société Géologique de France*, (NS)9(21): 1–67.

Rütimeyer, L. 1880. Beiträge zu einer natürlichen Geschichte der Hirsche. *Abhandlungen der Schweizerischen Paläontologischen Gesellschaft*, **7**: 1–8 (Einleitung), pls. 1–2, captions.

Schlosser, M. 1887. Paläontologische Notizen. *Morphologisches Jahrbuch*, **12**: 287–298.

Schlosser, M. 1916. Neue Funde fossiler Säugetiere in der Eichstätter Gegend. *Abhandlungen der Königlich Bayerischen Akademie der Wissenschaften Mathematisch-physikalische Klasse*, **28**(6): 1–78.

Simpson, G.G. 1945. The principles of classification and a classification of mammals. *Bulletin of the American Museum of Natural History*, **85**: 1–350.

Stehlin, H.G. 1928. Bemerkungen über die Hirsche von Steinheim am Aalbuch. *Eclogae Geologicae Helvetiae*, **21**: 245–56.

Stehlin, H.G. 1937. Bemerkungen über die miocaenen Hirschgenera *Stephanocemas* und *Lagomeryx*. *Verhandlungen der Naturforschenden Gesellschaft in Basel*, **48**: 193–214.

Thenius, E. 1948. Uber ein stammesgeschichtlich interessantes Stadium aus der Geschichte der Hirsche. *Anzeiger der Oesterreichischen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Wien*, **14**: 219–224.

Thenius, E. 1950. Die tertiären Lagomeryciden und Cerviden der Steiermark. *Sitzungsberichte der Oesterreichischen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Wien*, (1)**159**: 219–254.

Toula, F. 1884. Ueber einige Säugethierreste von Göriach bei Turnau (Bruck a.M. Nord) in Steiermark. *Jahrbuch der kaiserlich-königlichen geologischen Reichsanstalt*, **34**: 385–402.

Viret, J. 1961. Artiodactyla. Pp. 887–1084 *in* Piveteau, J. (Ed.), *Traité de Paléontologie*, vol. 6 (Mammifères. Evolution, 1). Masson, Paris.

Vislobokova, I.A. 1983. The fossil deer of Mongolia. *Trudy Sovmestnaya Sovetsko-Mongol'skaya Paleontologicheskaya Ekspeditsiya*, **23**: 5–74. [In Russian].

Young, C.C. 1964. On a new *Lagomeryx* from Lantian, Shensi. *Vertebrata Palasiatica*, **8**: 329–340.